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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,032	04/30/2001	Jonathan McFarland	884.424US1	4299
7590	04/19/2004		EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938 Minneapolis, MN 55402			ULLAH, AKM E	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/846,032

Applicant(s)

McFARLAND ET AL.

Examin r

Akm Enayet Ullah

Art Unit

2874

-- The MAILING DATE of this communication appears on th cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/27/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Detailed Action

Applicant cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Status of the Application

Claims 1-10 are pending in this application

Claims Rejection- 35 USC 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al (US Pub no. 2002/0097962 A1) in view of Stopperan (USPATNO. 5,428,190).

Regarding claim 1, Figure 33 of Yoshimura et al (US Pub no. 2002/0097962 A1) shows a cross-sectional view of a chip layer 350 attached to an active substrate 320. In the example shown, two types 351 and 352 are encapsulated in a dielectric film, and the active substrate 320 comprises a VCSEL emitter device 336 and a photo-detector device 328. The chip layer 350 may be laminated to the active substrate 320 by an isotropic conductive film 302. Such films are well known to the art. For details see page 22, col.2, last paragraph.

Regarding claim 2 wherein the anisotropic conductive film comprises an adhesive, anisotropic conductive film mentioned in page 22, col.2, last paragraph.

Regarding claim 3, wherein the adhesive, anisotropic conductive film comprises an epoxy and a plurality of conductive particles embedded in the epoxy mentioned in page 22, col.2, last paragraph.

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Regarding claim 4, wherein the optically transmissive unit optically couples each of a plurality of optical transmitters to one or more optical receivers mentioned in page 22, col.2, last paragraph.

Regarding claim 5, wherein the optically transmissive unit optically couples each of a plurality of optical transmitters to one or more optical receivers mentioned page 22, col.2, last paragraph.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the optical transmissive unit which is optical couples with each of a plurality of optical transmitters to one or more optical receivers of Yoshimura et al (US Pub no. 2002/0097962 A1) in Stopperan for such connecting device since with both references being directed to a common use in the same environment, there is an implied suggestion for applying that teachings of one to the other. That is, the skilled worker who is pressured to have knowledge of the prior art, with these two references before him, would immediately recognize the desirability of employing the optically transmissive unit by Yoshimura et al (US Pub no. 2002/0097962 A1) to the connecting device of Stopperan, as claimed.

Regarding claim 6, wherein the optically transmissive unit has a transmission area that is substantially rectangular is an obvious choice design variation to use a rectangular shaped transmissive unit in Stopperan since figures 4 -5 of the reference clearly show that numeral 122, 124 is a rectangular units.

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Regarding claim 7, wherein the anisotropic conductive film comprises an adhesive conductive film, which is mentioned in column 16 of the *Stopperan* reference.

Regarding claim 8, wherein the optically transmissive unit comprises an optical polymer is very elementary teachings in this optical connecting art as is also mentioned in *Stopperan* reference since the rigid circuit board numeral 122 & 124 can contain a flexible circuit board which itself is composed of multi-layers and three flexible polymeric substrate layers stated in column 17 last paragraph.

Regarding claim 9, wherein the optical polymer comprises an acrylic acrylate is well known in this optical connector art.

Regarding claim 10, wherein the optically transmissive unit comprises a substantially cylindrical transmissive material is an obvious choice since using optical material polymer is well known it would have been obvious to one of ordinary skill in that at the time the invention was made to use a substantially cylindrical optically transmissive material since column 18, lines 58-60 of the *Stopperan* reference stated that a modification can be done with standard and usual procedures for creating number of stacked layer on circuit boards..

Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akm Enayet Ullah whose telephone number is 703-308-4885. The examiner can normally be reached on 571-272-2361 from Monday through Wednesday to 5:30 am till 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick, can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Akm Enayet Ullah
Primary Examiner
Art Unit 2874

AUllah
April 14, 2004